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(54) Title: MANIPULATION AND DETECTION OF PROTEIN PHOSPHATASE 2C - PP2Cα - EXPRESSION IN TUMOR CELLS. FOR CANCER THERAPY, PREVENTION AND DETECTION

#### (57) Abstract

A method of detecting cancer in a patient by detecting alteration of activity of the gene coding for human type protein phosphatase 2C (PP2C $\alpha$  and PP2C $\beta$ ) and genetic polymorphisms thereof in a specimen isolated from the patient is disclosed. The invention further provides a method of treating cancer including the steps of first determining the type of cancer and cells expressing the cancer and then preparing a vector which will specifically target the cancer cells and can include regulatory elements to control the expressibility of PP2C $\alpha$ . The vector is then administered to the patient. Alternatively an antisense vector can be prepared.